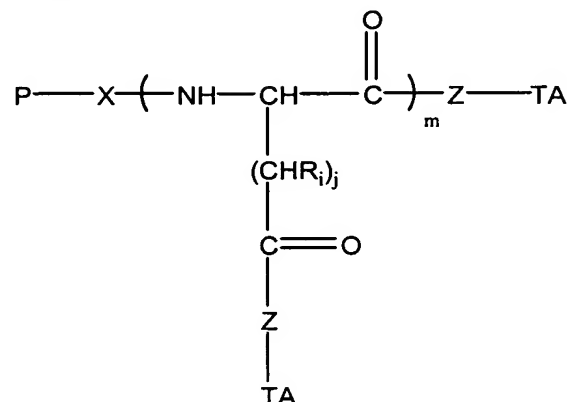


What is claimed is:

1. A conjugate of hydrophilic polymer-multicarboxyl oligopeptide and drug molecule of the following formula:



5 wherein:

P is a water soluble polymer;

m is an integer of 2~12;

j is an integer of 1~6;

10 R_i is a group selected from the group consisting of H, C_{1-12} alkyl, substituted aryl, aralkyl, heteroalkyl and substituted alkyl;

X is a linking group;

Z is a linking group selected from O and NH; and

TA is drug molecule.

15 2. The conjugate of claim 1 wherein the water soluble polymer is selected from the group consisting of polyethylene glycol, polypropylene glycol, polyvinyl alcohol, polyacrylmorpholine and copolymer thereof.

3. The conjugate of claim 2 wherein the water soluble polymer is polyethylene glycol.

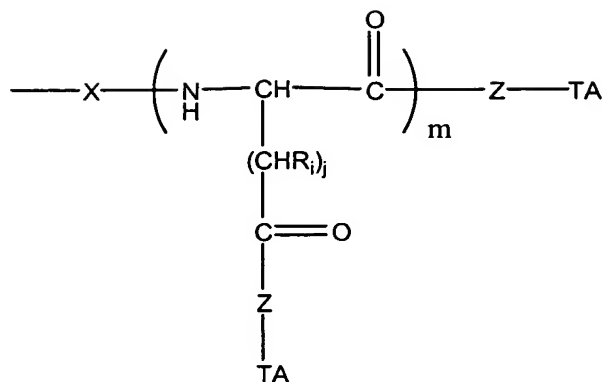
20 4. The conjugate of claim 3 wherein the molecular weight of polyethylene glycol is 300~60,000.

5. The conjugate of claim 1 wherein the linking group X is $(\text{CH}_2)_i$, $(\text{CH}_2)_i\text{OCO}$, $(\text{CH}_2)_i\text{NHCO}$ or $(\text{CH}_2)_i\text{CO}$, and wherein i is an integer of 0~10.

6. The conjugate of claim 1 wherein the free hydroxyl on the hydrophilic polymer can be substituted by C_{1-12} alkoxy, cycloalkoxy or aroxy.

25 7. The conjugate of claim 1 wherein the free hydroxyl on the hydrophilic polymer can be substituted by the following formula:

-15-



Wherein: x, m, j, R_i, Z and TA are the same as defined in claim 1.

8. The conjugate of claim 1 wherein target molecule can be carried in the hydrophilic polymer to perform targeted delivery of the conjugate.

5 9. The conjugate of claim 8 wherein the target molecule is an antibody.

10. The conjugate of claim 1 wherein the drug part TA is any one selected from the group consisting of amino acids, proteins, enzymes, nucleosides, saccharides, organic acids, glycosides, flavonoids, quinones, terpenoids, phenylpropanoid phenols, steroids and glycosides thereof and alkaloids.

10 11. The conjugate of claim 10 wherein the drug moiety TA is the active ingredient of a nature medicine.

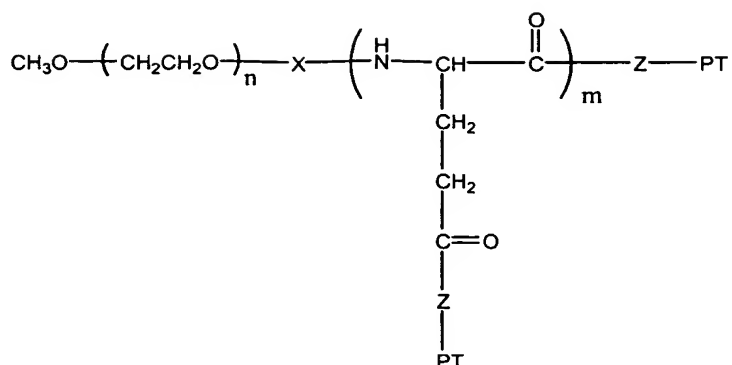
12. The conjugate of claim 11 wherein the natural active ingredient is cinobufagin, clycyrrhetic acid or scopoletin.

15 13. The conjugate of claim 10 wherein the drug moiety TA is an antitumor agent.

14. The conjugate of claim 13 wherein the antitumor agent is selected from the group consisting of paclitaxel, camptothecin, hydroxylcamptothecin, etoposide and derivatives thereof.

20 15. A conjugate of methoxypolyethylene glycol-glutamic acid oligopeptide and drug molecule having the following formula:

-16-



wherein:

n is an integer of 10~1200;

m is an integer of 2~12;

- 5 X is a linking group selected from the group consisting of $(\text{CH}_2)_i$, $(\text{CH}_2)_i\text{OCO}$, $(\text{CH}_2)_i\text{NHCO}$ and $(\text{CH}_2)_i\text{CO}$, and wherein i is an integer of 0~10;
 Z is a linking group selected from O and NH; and
 PT is a drug selected from the group consisting of paclitaxel, camptothecin, cinobufagin, clycyrrhetic acid, scopoletin and derivatives thereof.

10

16. A composition comprising a conjugate according to any one of claims 1 to 15 and pharmaceutically acceptable carrier or excipient.

17. The composition of claim 16 further comprising other therapeutically active ingredient.

15

18. The composition of claim 16, wherein it may be formulated into the form of tablet, suppository, pill, soft and hard gelatin capsules, powder, solution, suspension, or aerosol.

19. Use of the conjugate according to any one of claims 1~15 in manufacturing medicament.

20